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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,509

06/09/2006

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EXAMINER

HAILEY, PATRICIA L

ART UNIT

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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,509	Applicant(s) MIYASHITA ET AL.	
	Examiner PATRICIA L. HAILEY	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/09/06</u> . | 6) <input type="checkbox"/> Other: _____ |

Applicants' Preliminary Amendment, filed on June 9, 2006, has been made of record and entered. In this amendment, claims 3-7, 10, 11, and 14-17 have been amended to eliminate multiple claim dependency; no claims have been canceled or added.

Claims 1-17 remain pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Documents were filed on June 9, 2006.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. ***Claims 1, 3, 5-12, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Shipley, Jr. (U. S. Patent No. 3,011,920).***

Shipley, Jr. teaches a colloidal metal solution comprising metal colloid particles dispersed in a liquid medium, such as water. See claims 1 and 2 of Shipley, Jr.

Shipley, Jr. also discloses the electroless metal deposition of an adherent metal coating onto a substrate (such as a plastic panel which may have a metal foil laminated to one or both of its surfaces to form a metal clad substrate; considered to read upon the limitation “carrier” in **claim 16**). See col. 1, lines 1-48 of Shipley, Jr. (considered to read upon **claims 7, 8, 10, and 11**).

Deposition onto the substrate is done by treatment with a bath containing colloidal particles of a catalytic metal, and thereafter plating the substrate by treatment with a deposition solution (considered to read upon the limitation “metal-on carrier” as recited in **claim 17**). The deposition solution usually comprises salts of metals such as gold or members of the platinum family and a reducing agent therefor, and the colloidal particles may comprise metals such as platinum, palladium, or gold. See col. 2, lines 21-55 of Shipley, Jr. (considered to read upon **claims 5 and 9**); although this excerpt discloses that it is *preferred* that the colloidal solution also contain a protective colloid and/or a deflocculating agent, its presence is not deemed required.

At col. 2, lines 56-63 of Shipley, Jr., the reference teaches that superior process results are obtained from the preparation of colloidal solutions of a desired catalytic metals, treating the substrate by immersion or spraying with the colloidal solution, followed by the subsequent introduction into the appropriate plating bath. This disclosure is considered to read upon **claim 12**.

The Examples of Shipley, Jr. depict exemplary solutions containing, for example, palladium chloride, water, HCl, and tin chloride, wherein colloidal platinum is formed

by the reduction of the palladium ions by the tin chloride (col. 3, lines 1-10). This disclosure is considered to read upon **claims 1, 6 and 12**, and also **claim 3**, as the protective colloid is not reduced to carbon, and in view of Applicants' lower limit of "0... mass ppm total carbon with respect to the nanocolloidal metal particles".

In view of these teachings, Shipley, Jr. anticipates claims 1, 3, 5-12, 16, and 17.

4. *Claims 1-7 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Stiles (U. S. Patent No. 3,230,034).*

Stiles teaches catalytic materials in substantially colloidal form, said materials in the form of particles of size no greater than 1500 angstroms (150 nm) or more preferably no greater than 100 angstroms (10 nm). See col. 1, lines 47-55 of Stiles (considered to read upon **claim 4**).

Stiles also teaches the formation of a dispersion of the catalytic material in a liquid medium such as water, acetone, alcohols, cyclohexane, benzene or any other inert liquid. See col. 2, lines 31-36 of Stiles (considered to read upon the limitation "aqueous medium in **claim 6**).

At col. 2, lines 44-50 of Stiles, reference is made to the preparation of colloidal dispersions of silica in water containing chloroplatinic acid, and the chloroplatinic acid can be reduced to platinum with reducing agents such as formaldehyde or methanol, which gives metallic platinum colloiddally dispersed upon particles of silica (which

serves as an interspersant). This disclosure is considered to read upon **claims 1, 3, 5, 7, and 17**.

The interspersant (e.g., silica) can be used in widely varying amounts from 0.1% to 95% based upon the total weight of solids in the final precipitate or mixture of catalyst plus interspersant. See col. 7, lines 12-26 of Stiles; this disclosure is considered to read upon the limitation “metal particle concentration of 250 mass ppm or more” recited in **claim 2**.

In view of these teachings, Stiles anticipates claims 1-7 and 17.

Allowable Subject Matter

5. Claims 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or suggest the limitations of claims 13-15.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICIA L. HAILEY whose telephone number is (571)272-1369. The examiner can normally be reached on Mondays-Fridays, from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICIA L. HAILEY/
Examiner, Art Unit 1793
September 2, 2008